

N60200.AR.008978
NAS CECIL FIELD
5090.3a

SITE ASSESSMENT REPORT BUILDING 606 TANK 606 BASE REALIGNMENT AND
CLOSURE UNDERGROUND STORAGE TANK AND ABOVEGROUND STORAGE TANK
GREY SITES NAS CECIL FIELD FL
9/1/1998
HARDING LAWSON ASSOCIATES

SITE ASSESSMENT REPORT

BUILDING 606, TANK 606

BASE REALIGNMENT AND CLOSURE

**UNDERGROUND STORAGE TANK AND
ABOVEGROUND STORAGE TANK GREY SITES**

**NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA**

Unit Identification Code: N60200

Contract No.: N62467-89-D-0317/090

Prepared by:

**Harding Lawson Associates
2590 Executive Center Circle, East
Tallahassee, Florida 32301**

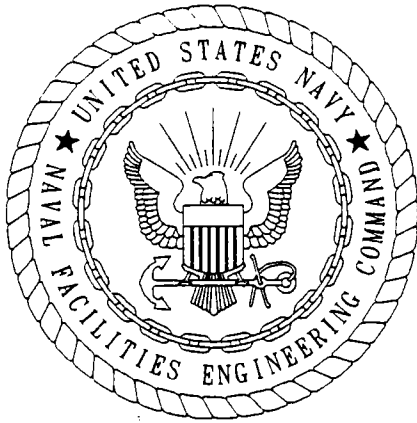
Prepared for:

**Department of the Navy, Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
North Charleston, South Carolina 29418**

Bryan Kizer, Code 1842, Engineer-in-Charge

September 1998

Revision 0.0



CERTIFICATION OF TECHNICAL
DATA CONFORMITY (MAY 1987)

/

The Contractor, Harding Lawson Associates, hereby certifies that, to the best of its knowledge and belief, the technical data delivered herewith under Contract No. N62467-89-D-0317/090 are complete and accurate and comply with all requirements of this contract.

DATE: September 9, 1998

NAME AND TITLE OF CERTIFYING OFFICIAL: Rao Angara
Task Order Manager

NAME AND TITLE OF CERTIFYING OFFICIAL: Eric A. Blomberg, P.G.
Project Technical Lead

(DFAR 252.227-7036)

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Naval Air Station Cecil Field
Jacksonville, Florida

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Naval Air Station Cecil Field
Jacksonville, Florida

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GLOSSARY

ABB-ES	ABB Environmental Services, Inc
bls	below land surface
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
HLA	Harding Lawson Associates
KAG	Kerosene Analytical Group
OVA	organic vapor analyzer
ppm	parts per million
UST	underground storage tank
yd ³	cubic yard

1.0 INTRODUCTION

Harding Lawson Associates (HLA), under contract to the Southern Division, Naval Facilities Engineering Command, has completed the site assessment for Tank 606 at Naval Air Station Cecil Field in Jacksonville, Florida. This report summarizes the related field operations, results, conclusions, and recommendations of the site assessment.

Tank 606 was an underground storage tank (UST) located at Building 606, which was the Enlisted Dining Hall for the Marine Barracks in Yellow Water Weapons Area (Figure 1). The UST had a 3,000 gallon capacity and was used to store fuel oil for on-site heating. It is not known when the tank was installed.

Tank 606 was removed by Supship Portsmouth Environmental Detachment on April 15, 1997. Approximately 20 cubic yards (yd³) of excessively contaminated soil was removed from the site at that time. Excessively contaminated soil was still present after the tank and 20 yd³ of soil were removed. No groundwater contamination was detected in the groundwater sample collected from a temporary monitoring well that was installed in the area of the highest contamination. A closure report was prepared for Tank 606 and submitted to the Florida Department of Environmental Protection (FDEP) (Environmental Detachment Charleston, 1997). Since excessively contaminated soil remained after tank removal, a site assessment for the assessment of soil at Tank 606 was proposed.

2.0 FIELD INVESTIGATION

The site assessment for Tank 606 was initiated in November 1997 and included

- the advancement of 14 soil borings to the water table, and
- the collection of two subsurface soil samples.

Soil samples were collected from each boring at depth intervals of 1 foot below land surface (bls) and every 2 feet thereafter to the water table. These samples were screened for hydrocarbon vapors with an organic vapor analyzer (OVA). Two subsurface soil samples were collected from the areas with the highest OVA concentrations and analyzed for Kerosene Analytical Group (KAG) parameters. Samples CEF-606-SB1 and CEF-606-SB2 were collected from 2 to 4 feet bls and 3.5 feet bls, respectively.

3.0 SCREENING AND ANALYTICAL RESULTS

Excessively contaminated soil (greater than 50 parts per million [ppm] on an OVA) was detected in several soil borings. The highest OVA reading (1700 ppm) was detected at 3 feet bls from a moist sample collected from soil boring SB5. High levels of methane were also detected in the soil screening samples and may be causing the elevated OVA readings. Very few petroleum odors were identified in the soil samples. The extent of excessively contaminated soil is presented on Figure 2. The soil OVA data are summarized in Table 1.

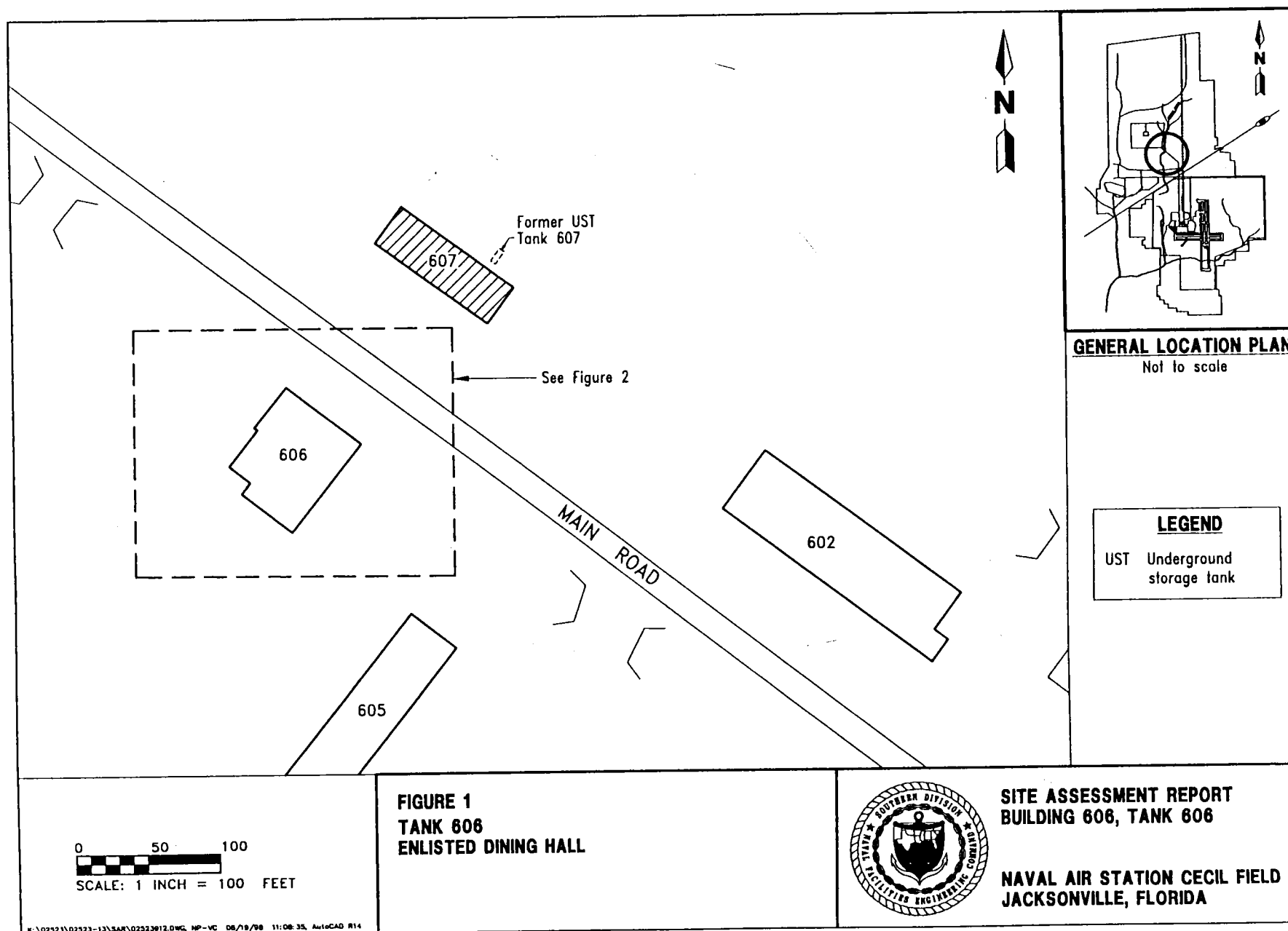


Table 1
Soil Screening Results

Site Assessment Report
Building 606, Tank 606
Naval Air Station Cecil Field
Jacksonville, Florida

Location	OVA Concentration (ppm)			
	Depth (feet bls)	Unfiltered	Filtered	Actual
SB1	1	50	25	25
	3 (wet)	200	100	100
SB2	1	1,900	1,650	250
	3 (wet)	260	240	20
SB3	1	0	0	0
	3 (wet)	25	22	3
SB4	1	3	0	3
	3 (wet)	70	70	0
SB5	1	50	15	35
	3	2,000	300	1,700
	4.5 (wet)	400	370	30
SB6	1	20	4	16
	3	1,600	1,000	600
	4.5 (wet)	1,800	1,800	0
SB7	1	50	10	40
	2 (wet)	20	0	20
SB8	1	0	—	0
	3 (wet)	140	120	20
SB9	1	300	70	230
	3 (wet)	15	70	0
SB10	1	10	8	2
	3 (wet)	700	700	0
SB11	1	1,200	150	1,050
	3 (wet)	300	250	50
SB12	1	0	0	0
	3 (wet)	2,200	2,200	0
SB13	1	1,000	1,000	0
	3 (wet)	150	120	30
SB14	1	50	50	0
	3 (wet)	150	130	20

Notes: All soil samples were collected on November 7 and 10, 1997.
All concentrations are in ppm.
Soil samples were filtered with carbon to determine the methane concentration.

OVA = organic vapor analyzer.
ppm = parts per million.
bls = below land surface.
wet = soil sample was completed saturated when analyzed.
— = filtered readings were not collected.

No contaminants were detected in the KAG soil samples above FDEP cleanup target levels as specified in Chapter 62-770, Florida Administrative Code (FAC). KAG soil sample results are summarized in Table 2. The complete analytical data set is presented in Appendix B.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Data obtained during the site assessment at the Tank 606 site provided an adequate assessment of the horizontal and vertical extent of excessively contaminated soil. It appears that methane may be causing elevated OVA readings around the perimeter of the site, and delineation to 50 ppm was not completed. No contaminants were detected above the cleanup target levels specified in Chapter 62-770, FAC, in the KAG subsurface soil samples collected at the Tank 606 site. No contaminants were detected in the groundwater sample collected during the closure assessment. Therefore, it is recommended that no further action take place at the Tank 606 site.

Table 2
Summary of Subsurface Soil Analytical Detections

Site Assessment Report
Building 606, Tank 606
Naval Air Station Cecil Field
Jacksonville, Florida

Compound	CEF-606-SB1	CEF-606-SB2	Soil Cleanup Target Levels ¹
<u>Volatile Organic Aromatics (USEPA Method 8020) (mg/kg)</u>			
No compounds detected			
<u>Polynuclear Aromatic Hydrocarbons (USEPA Method 8310) (mg/kg)</u>			
Benzo(a)anthracene	0.033	ND	2.9
Benzo(a)pyrene	0.029	ND	7.8
Benzo(b)fluoranthene	0.032	ND	9.8
Benzo(g,h,i)perylene	0.020	ND	13,000
Benzo(k)fluoranthene	0.015	ND	25
Chrysene	0.028	ND	80
Dibenz(a,h)anthracene	0.028	ND	14
Fluoranthene	0.016	ND	550
Indeno(1,2,3-cd)pyrene	0.021	ND	28
Pyrene	0.077	ND	570
<u>Total Recoverable Petroleum Hydrocarbons (TRPH) (FL-PRO) (mg/kg)</u>			
TRPH	19	35	340
¹ Chapter 62-770, Florida Administrative Code for Leachability, Table V. Notes: Soil sample was collected on April 16, 1998. USEPA = U.S. Environmental Protection Agency. mg/kg = milligrams per kilogram. ND = not detected. FL-PRO = Florida-Petroleum Residual Organics.			



REFERENCES

Environmental Detachment Charleston. 1997. *Closure Report for Underground Storage Tank 606, Naval Air Station Cecil Field, Jacksonville, Florida.* (May).

APPENDIX A

CLOSURE ASSESSMENT REPORT


Environmental Detachment Charleston
1899 North Hobson Avenue
North Charleston, South Carolina 29405-2106

Eric Blomberg
ABB Environmental Engineering Services, Inc.
2590 Executive Center Circle East
Berkley Building
Tallahassee, Florida 32301

Dear Mr. Blomberg,

Enclosed are the Assessment Reports for five each UST's removed at NAS Cecil Field. The Assessment Reports are being forwarded per the request of Southern Division's Brian Kizer.

Respectfully,



Tom McElwee (Environmental Specialist)

SPORTENVDETHASN
SUPSHIP PORTSMOUTH ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE
NORTH CHARLESTON, S.C. 29405-2106
Underground Storage Tank (UST) Assessment Report

I OWNERSHIP OF UST(S)

Agency/Owner: Naval Air Station, Cecil Field		DER Facility No. 168507293	
Mailing Address: N.P.W.C., Box 101, Cecil Field Zone, NAS Cecil Field.			
City: Jacksonville	State: FL	Zip Code: 32215-0101	
Area Code: 904	Telephone Number: 778-5620	Contact Person: Lloyd Cruz	

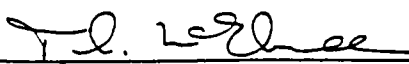
II SITE IDENTIFICATION AND LOCATION

Site I.D. #:	BUILDING 606		
Facility Name:	Naval Air Station Cecil Field		
Street Address:	Building 606, Main Road, Yellow Water Weapons Area		
City:	Jacksonville, 32215-0101	County:	Duval

III CLOSURE INFORMATION

Closure Started: 4/15/97	Closure Completed: 4/16/97
Number of USTs Closed: 1	
N/A	SPORTENVDETHASN
Consultant	UST Removal Contractor

IV. CERTIFICATION (Read and Sign after completing entire submittal)

<small>I certify that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals responsible for obtaining that information, I believe that the submitted information is true, accurate and complete.</small>	
T.L. McElwee - Project Engineer	
Name (Type or Print)	
	
Signature	

V. UST INFORMATION

- A. Product.....
- B. Capacity.....
- C. Age.....
- D. Construction Material.....
- E. Month/Year of Last Use.....
- F. Depth (ft.) To Base of Tank.....
- G. Spill Prevention Equipment Y/N.....
- H. Overfill Prevention Equipment Y/N.....
- I. Method of Closure Removed/Filled.....
- J. Visible Corrosion or Pitting Y/N.....
- K. Visible Holes Y/N.....

Tank 1	Tank 2	Tank 3	Tank 4	Tank 5	Tank 6
Fuel Oil					
3,000gal					
unk					
steel					
unk					
7'					
N					
N					
R					
Y					
Y					

- L. Method of disposal for any USTs removed from the ground (attach disposal manifests)

UST 606 was removed, drained, cut open at both ends, and cleaned with a steam cleaner. It was then cut up for recycling as scrap metal and delivered to the Cecil Field Recycling Center. (See Attachment III.)

- M. Method of disposal for any liquid petroleum, sludges, or waste waters removed from the USTs (attach disposal manifests)

Prior to tank removal the residual fuel was pumped out of the tank by contractor. The disposal manifest is included in Attachment III. The oily rinse water was recycled through the oil/water separator at the Transportation Office, Building 80, NAS Cecil Field.

- N. If any corrosion, pitting, or holes were observed, describe the location and extent for each UST

The west side of the tank (street side) had many areas of corrosion and pitting, but only two holes were found. They were found midway up the side of the tank, 3 feet and 6 feet from the south end and a third hole was in the south end of the tank (supply and return end) approximately 1" from the bottom.

VI. PIPING INFORMATION

- A. Construction Material.....
- B. Distance from UST to Dispenser.....
- C. Number of Dispensers.....
- D. Type of System P/S.....
- E. Was Piping Removed from the Ground? Y/N....
- F. Visible Corrosion or Pitting Y/N.....
- G. Visible Holes Y/N.....
- H. Age.....

Tank 1	Tank 2	Tank 3	Tank 4
Steel & PVC			
25' see note 1			
1 see note 1			
S			
Y			
Y			
Y			
Unk			

Note 1: The tank provided fuel oil to Building 606.

- I. If any corrosion, pitting, or holes were observed, describe the location and extent for each line.

The supply and return piping had moderate corrosion and pitting. Several holes were found in the line between the tank and the building, and the mechanical connections at the tank were loose. The 1 1/2" vent line from the tank was steel to a rubber boot and then polyvinyl chloride (PVC) piping to the side of the building. This vent piping had light corrosion with one 3/4" hole located just past the rubber boot in piping run. There was a second vent line that was entirely PVC and had been previously cut and abandoned at the edge of the excavation. This was removed. (See Site Map 4)

VII. BRIEF SITE DESCRIPTION AND HISTORY

Building 606 was a former Enlisted Men's Dining Facility located on Main Road in the Yellow Water Weapons area next to the barracks (building 605). A 3,000 gallon Fuel oil UST was located on the north side of the building and was used to provide fuel to a boiler that produced on site heat. The tank was 5'4" X 18' long and was located 7' deep under soil and asphalt.

VIII. SITE CONDITIONS

Yes No Unk

A.	<p>Were any petroleum-stained or contaminated soils found in the UST excavation, soil borings, trenches, or monitoring wells?</p> <p>If yes, indicate depth and location on the site map. <u>[UST excavation from GSL to Concrete ballast pad @ 7', 3' deep in piping trenches and 2' to 6' deep in soil borings.]</u></p>	X		
B.	<p>Were any petroleum odors detected in the excavation, soil borings, trenches, or monitoring wells?</p> <p>If yes, indicate location on site map and describe the odor (strong, mild, etc.) <u>[Throughout UST excavation, strong]</u></p>	X		
C.	<p>Was water present in the UST excavation, soil borings, or trenches? If yes, how far below land surface (indicate location and depth)? <u>/</u></p>		X	
D.	<p>Did contaminated soils remain stockpiled on site after closure? If yes, indicate the stockpile location on the site map. <u></u></p>		*X	
E.	<p>Was a petroleum sheen or free product detected on any excavation or boring waters?</p> <p>If yes, indicate location and thickness on the site map.</p>		X	

*Per agreement with SouthDiv, Cecil Field Environmental, and Bechtel, all soil from the excavation was transported to Site 3 on base and placed on two layers of poly and covered by another double layer of poly and held down by sandbags. Soil is being stockpiled at Site 3 for future treatment/incineration. Excavation was backfilled with clean fill from Powerline Sand Inc., 8442 W. Beaver St., Jacksonville, Florida, 32220.

IX. SAMPLING METHODOLOGY

Provide a detailed description of the methods used to collect and store (preserve) the samples.

After the removal of UST 606, an Organic Vapor Analyzer-Flame Ionization Detector (PE PHOTOVAC MicroFid, Serial Number CZE215) was used to screen the soils for petroleum hydrocarbon vapors. OVA headspace samples were taken in each corner and in the center of the excavation at 1' and every two feet thereafter until reaching the concrete ballast pad. In this excavation, the top of the concrete ballast pad was at 7'. UST piping soil samples were taken two feet under the piping at the mechanical connections or at the center of the piping run. OVA headspace soil samples were extracted using the backhoe bucket and sampled from the middle of the bucket. Sampling was performed in accordance with the FDEP Pollutant Storage Tank Closure Assessment Requirements and the FDEP Quality Assurance Standard Operating Procedures for Petroleum Storage System Closure Assessments.

Subsequent to backfilling excavation, a temporary monitoring well was installed at the area of highest contamination, developed, purged and sampled. Sample jars were prepared by the testing laboratory. The sample containers were filled leaving no head space and immediately capped.

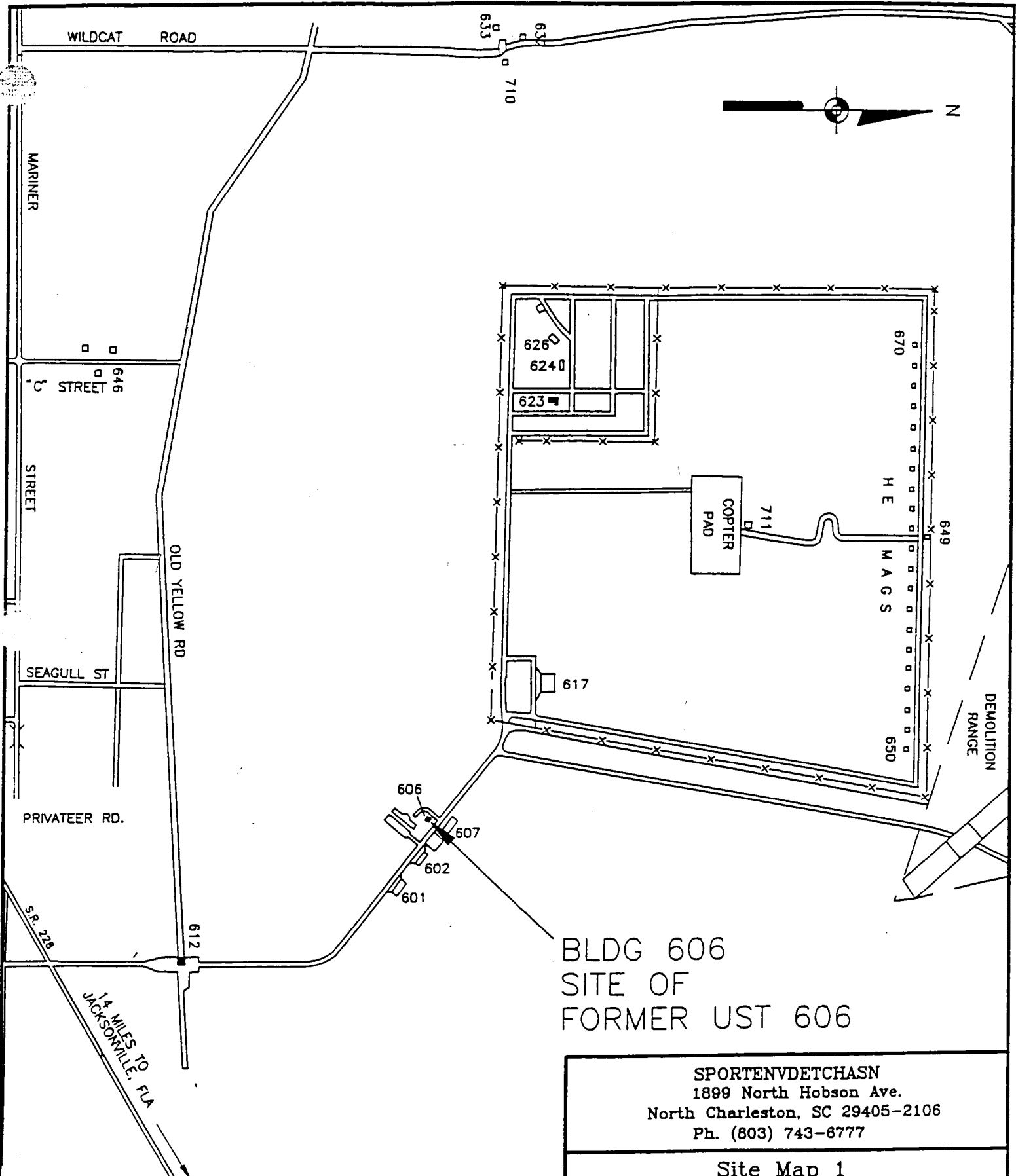
The samples were marked, logged, and immediately placed in sample coolers packed with ice to maintain an approximate temperature of 4° C. Tools were thoroughly cleaned and decontaminated with organic-free soap and water after each sample.

The samples remained in the custody of SPORTENVDETCHASN until they were transferred to NPWC Pensacola Environmental Laboratory for analysis as documented in the attached Chain-of-Custody Record.

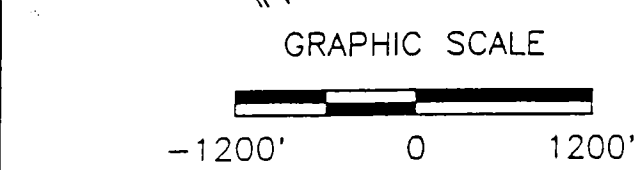
SITE MAP

You must supply a scaled site map. It should include all buildings, road names, utilities, tank and pump island locations, sample locations, extent of excavation, and any other pertinent information.

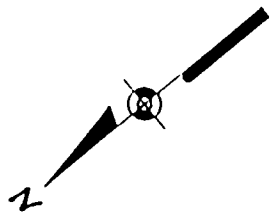
Site Maps 1, 2, 3, and 4
Temporary Monitoring Well Installation Detail
Photographs 1, 2, 3, and 4



BLDG 606
SITE OF
FORMER UST 606



SPORTENVDETHASN 1899 North Hobson Ave. North Charleston, SC 29405-2106 Ph. (803) 743-8777	
Site Map 1 UST 606 NAS Cecil Field Yellow Water Weapons Area Jacksonville, FL	
DWG DATE: 15 May 97	DWG NAME: CF606_1



MAIN ROAD

BLDG 605

SIDEWALK

BLDG 606

SEWER MANWAY

POWER POLE

VENTS

GRASS

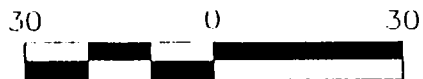
POWER POLE

ASPHALT DRIVE

FORMER
UST 606

FILL

ASPHALT CAP OVER UST



GRAPHIC SCALE

SPORTENVDETHASN
1899 North Hobson Ave.
North Charleston, SC
29405-2106
Ph. (803) 743-6777

Site Map 2
UST 606
NAS Cecil Field
Yellow Water Weapons Area
Jacksonville, FL

DWG DATE: 15 May 97

DWG NAME: UST 606

BLDG 606

VENT, FOUND DISCONNECTED
AND UNCAPPED

(ALL PVC PIPING)

(PVC PIPING)

RUBBER COUPLING

CUT AND CAPPED, NEW

SCREWED MECHANICAL JOINTS

VENT
(STEEL PIPING)

SUPPLY & RETURN PIPING
(1/2" STEEL)

BALLAST PAD

FILL

PIPE RUN EXCAVATION, TYP
(REMAINDER OF RUN REMOVED FOR CLARITY)

UST EXCAVATION

GRASS

ASPHALT

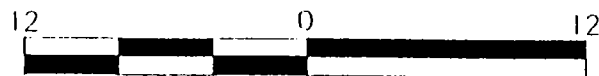
LEGEND

P - POWER POLE

S - SEWER MANWAY

⊗ - SITE OF TEMPORARY MONITORING
WELL TW-606-1

FORMER UST 606



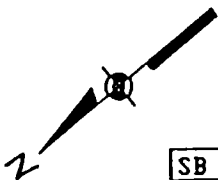
GRAPHIC SCALE

SPORTENVDETCHASN
1899 North Hobson Ave.
North Charleston, SC
29405-2106
Ph. (803) 743-6777

Site Map 3
UST 606
NAS Cecil Field
Yellow Water Weapons Area
Jacksonville, FL

DWG DATE: 21 MAY 97

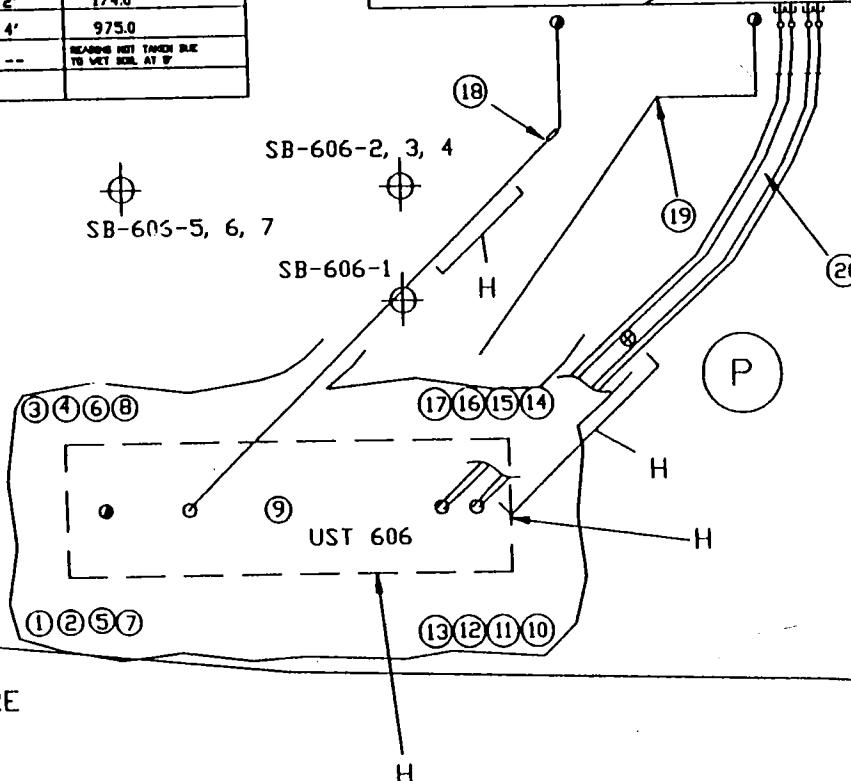
DWG NAME: CF 606



SB #	TIME	DEPTH	READING(ppm)
SB-606-1	0855	2'	32.0
SB-606-2	0920	2'	547.0
SB-606-3	0933	4'	267.0
SB-606-4	0955	6'	52.0
SB-606-5	1125	2'	174.0
SB-606-6	1147	4'	975.0
SB-606-7	--	--	READING NOT TAKEN DUE TO WET SOIL AT 4'

BLDG 606

SS #	TIME	DEPTH	READING(ppm)
SS-1	1740	1'	690
SS-2	1743	3'	2380
SS-3	1750	1'	4200
SS-4	1753	3'	2071
SS-5	1746	5'	4613
SS-6	1756	5'	755
SS-7	1749	7'	>5000
SS-8	1758	7'	888
SS-9	1800	7'	1334
SS-10	1802	1'	225
SS-11	1804	3'	2310
SS-12	1805	5'	3012
SS-13	1807	7'	2027
SS-14	1809	1'	463
SS-15	1811	3'	638
SS-16	1812	5'	>5000
SS-17	1814	7'	>5000
SS-18	0944	3'	607
SS-19	0946	3'	335
SS-20	0948	3'	1324

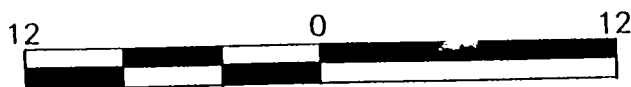


LEGEND

- H - HOLES FOUND HERE
- P - POWER POLE
- S - SEWER MANWAY
- SB - SOIL BORING
- ⊗ - SITE OF TEMPORARY MONITORING WELL TW-606-1
- ① - SOIL SAMPLE (SS-#)

NOTE:

APPROX. 20 CU YARDS OF CONTAMINATED SOIL WAS REMOVED AND TRANSFERED TO SITE 3 AT NAS CECIL FIELD.

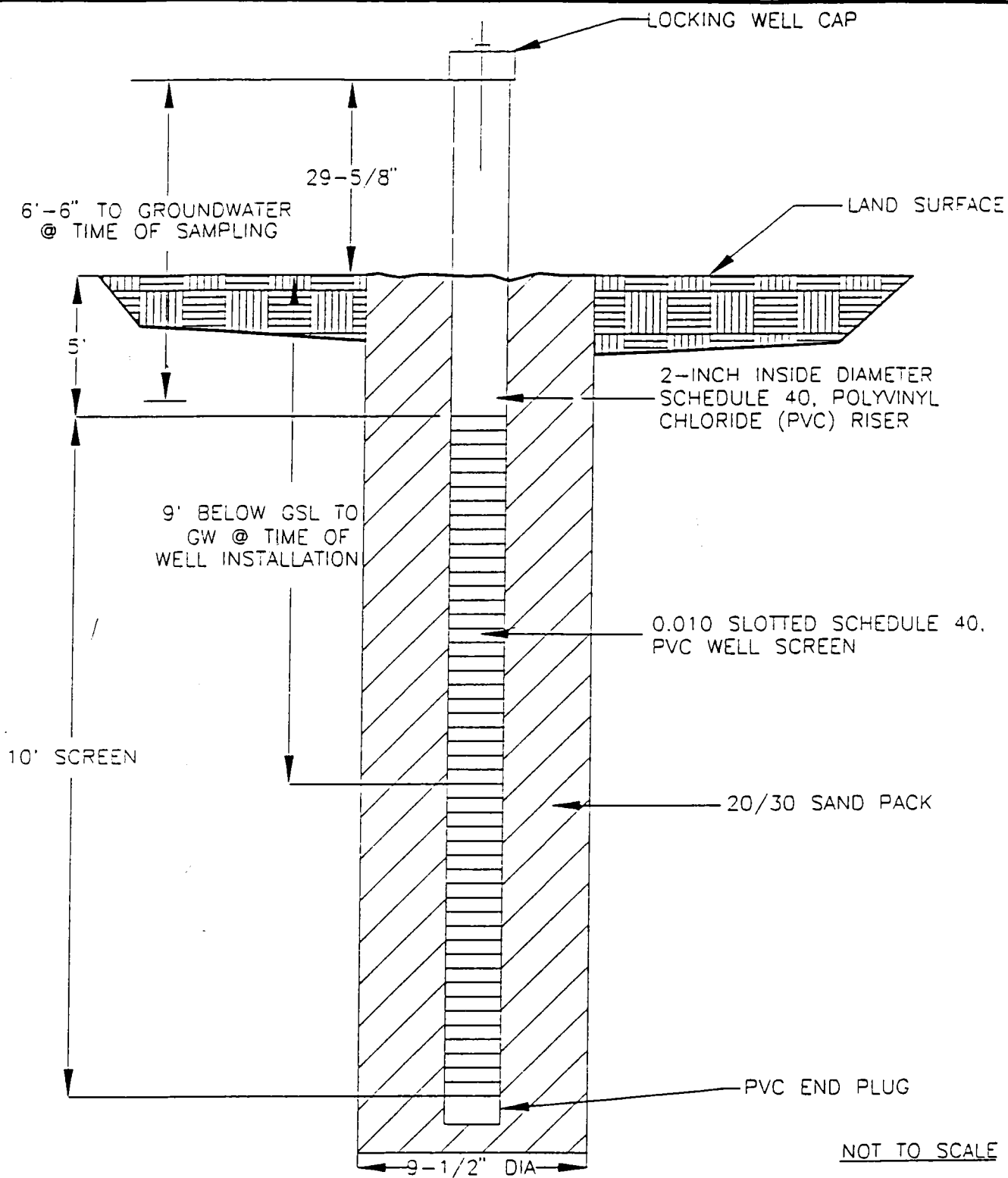


GRAPHIC SCALE

SPORTENVDETHASN
1899 North Hobson Ave.
North Charleston, SC
29405-2108
(803) 743-6777

Site Map 4
UST 606
NAS Cecil Field
Yellow Water Weapons Area
Jacksonville, FL

DWG DATE: 22 MAY 97 DWG NAME: 606_4



TYPICAL TEMPORARY MONITORING WELL
INSTALLATION DETAIL

SPORTENVDETHASN
1899 North Hobson Ave.
North Charleston, SC 29405-2106
Ph. (803) 743-6777

TW-606-1
AT UST 606
NAS CECIL FIELD
Jacksonville, FL.

UST 606 at NAS Cecil Field



Photo 1: UST 606 exposed for removal.

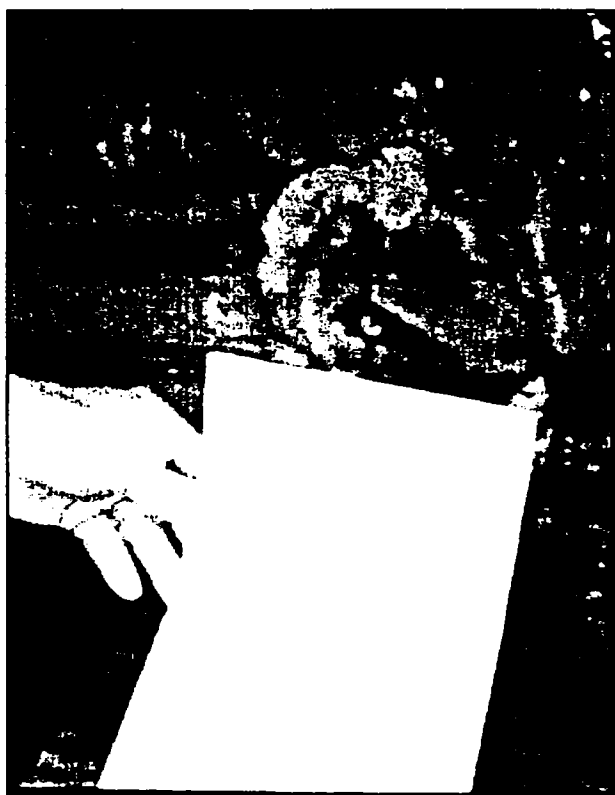


Photo 2: Close up of UST 606 hole.



Photo 3: Location of two of the holes.

UST 606 at NAS Cecil Field



Photo 4: UST 606 being removed from the excavation. Note the absence of groundwater.

ANALYTICAL RESULTS

You must submit the laboratory report and chain-of-custody form for the samples. These samples must be analyzed by a Florida certified laboratory.

Certified Analytical Results
Chain-of-Custody

Navy Public Works Center

Environmental Laboratory

Bldg. 3887, Code 920

NAS Pensacola, FL 32508 - 6500

Phone (904) 452-4728/3642

USN 922-4728/3642

FAX 922-2783

Client: SPORTEVDETCHASN Lab

Address: 1899 N. Hobson Ave.

N. Charleston, S.C. 29405-2106

Phone #: (803) 743-3239 ext. 26

Contact: Mr. Fred McLean

Analytical Report

Total Volatiles by Method 8260

Lab Report Number: 71699

Sample Date: 04/22/97

Received Date: 04/23/97

Sample Site: NAS Cecil Field, FL

Job Order No.: 127 4021

LAB Sample ID#	1-	71699			
Sample Name / Location		Bldg. 606 TW-606-1			
		97CNS011-1			
Collector's Name		McElwee			
Date & Time Collected		04/22/97 @ 1020			
Sample Type (composite or grab)		Grab			
Analyst		J. Moore			
Date of Extraction / Initials		04/23/97 JM			
Date of Analysis		04/23/97			
Sample Matrix		GW			
Dilution			X	1	
Compound					
Name	1-	71699	units	Det. Limit	Flags
Benzene	BDL		ug/L	1	
Bromobenzene	BDL		ug/L	1	
Bromochloromethane	BDL		ug/L	1	
Bromodichloromethane	BDL		ug/L	1	
Bromoform	BDL		ug/L	2	
Bromomethane	BDL		ug/L	3	
n-Butylbenzene	BDL		ug/L	1	
sec-Butylbenzene	BDL		ug/L	1	
tert-Butylbenzene	BDL		ug/L	2	
Carbon Tetrachloride	BDL		ug/L	1	
Chlorobenzene	BDL		ug/L	1	
Chloroethane	BDL		ug/L	1	
Chloroform	BDL		ug/L	1	
Chloromethane	BDL		ug/L	1	
2-Chlorotoluene	BDL		ug/L	1	
4-Chlorotoluene	BDL		ug/L	1	
Dibromochloromethane	BDL		ug/L	1	
1,2-Dibromo-3-chloropropane	BDL		ug/L	5	
1,2-Dibromoethane	BDL		ug/L	1	
Dibromomethane	BDL		ug/L	1	
1,2-Dichlorobenzene	BDL		ug/L	1	
1,3-Dichlorobenzene	BDL		ug/L	1	
1,4-Dichlorobenzene	BDL		ug/L	1	
Dichlorodifluoromethane	BDL		ug/L	1	
1,1-Dichloroethane	BDL		ug/L	1	
1,2-Dichloroethane	BDL		ug/L	1	
1,1-Dichloroethene	BDL		ug/L	1	
cis-1,2-Dichloroethene	BDL		ug/L	1	
trans-1,2-Dichloroethene	BDL		ug/L	1	
1,2-Dichloropropane	BDL		ug/L	1	
1,3-Dichloropropane	BDL		ug/L	1	
2,2-Dichloropropane	BDL		ug/L	1	
1,1-Dichloropropene	BDL		ug/L	1	
Ethylbenzene	BDL		ug/L	1	
Ethyl ether	BDL		ug/L	1	
Hexachlorobutadiene	BDL		ug/L	2	
2-Hexanone	BDL		ug/L	1	
Isopropylbenzene	BDL		ug/L	1	
p-Isopropyltoluene	BDL		ug/L	1	

Navy Public Works Center Environmental Laboratory

Bldg. 3887, Code 920
NAS Pensacola, FL 32508 - 6500
Phone (904) 452-4728/3642
SN 922-4728/3642

Client: SPORTENVDETHASN Lab
Address: 1899 N. Hobson Ave.
N. Charleston, S.C. 29405-2106
Phone #: (803) 743-3239 ext. 26
Contact: Mr. Fred McLean

Analytical Report

Total Volatiles by Method 8260

Lab Report Number: 71699
Sample Date: 04/22/97
Received Date: 04/23/97
Sample Site: NAS Cecil Field, FL
Job Order No.: 127 4021

Compound Name	1- 71699	units	Det. Limit	Flags
Methylene Chloride	BDL	ug/L	1	
Methyl ethyl ketone (MEK) *	BDL	ug/L	2	
Methyl isobutyl ketone (MIBK) *	BDL	ug/L	1	
Methyl-tert-butyl ether (MTBE)	BDL	ug/L	1	
Naphthalene	BDL	ug/L	1	
n-Propylbenzene	BDL	ug/L	1	
Styrene	BDL	ug/L	1	
1,1,1,2-Tetrachloroethane	BDL	ug/L	1	
1,1,2,2-Tetrachloroethane	BDL	ug/L	1	
Tetrachloroethene	BDL	ug/L	1	
Toluene	BDL	ug/L	1	
1,2,3-Trichlorobenzene	BDL	ug/L	1	
1,2,4-Trichlorobenzene	BDL	ug/L	1	
1,1,1-Trichloroethane	BDL	ug/L	1	
1,1,2-Trichloroethane	BDL	ug/L	1	
Trichloroethene	BDL	ug/L	1	
Trichlorofluoromethane	BDL	ug/L	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane *	BDL	ug/L	1	
1,2,3-Trichloropropane	BDL	ug/L	1	
1,2,4-Trimethylbenzene	BDL	ug/L	1	
1,3,5-Trimethylbenzene	BDL	ug/L	1	
Vinyl Chloride	BDL	ug/L	1	
m,p-Xylene	BDL	ug/L	1	
o-Xylene	BDL	ug/L	1	

SURROGATE SPIKE RECOVERIES

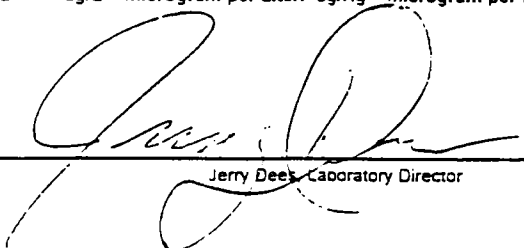
	Acceptance Limits	Percent Recovery
1,2-Dichloroethane-d4	75-133	104
Toluene-d8	86-119	99
Bromofluorobenzene	85-116	101

Explanation of Flags:

COMMENTS :

BDL = Below Detection Limit. ug/L = microgram per Liter. ug/Kg = microgram per Kilogram. * = FL HRS certification pending.

Approved by :


Jerry Dees, Laboratory Director

Date: 5/9/97

Report Generated

Navy Public Works Center Environmental Laboratory

Bldg. 3887, Code 920
NAS Pensacola, FL 32508 - 6500
Phone (904) 452-4728/3642
FAX 922-4728/3642

Client: SPORTEVDETCHASN Lab
Address: 1899 N. Hobson Ave.
N. Charleston, S.C. 29405-2106
Phone #: (803) 743-3239 ext. 26
Contact: Mr. Fred McLean

Analytical Report

610 PAH's by Method 8270

Lab Report Number: 71699
Sample Date: 04/22/97
Received Date: 04/23/97
Sample Site: NAS Cecil Field, FL
Job Order No.: 127 4021

LAB Sample ID#	1-	71699		
Sample Name / Location	Bldg. 606 TW-606-1 97CNS011-1			
Collector's Name	McElwee			
Date & Time Collected	04/22/97 @ 1020			
Sample Type (composite or grab)	Grab			
Analyst	M. Chambers			
Date of Extraction / Initials	04/25/97 JJ			
Date of Analysis	04/28/97			
Sample Matrix	GW			
Dilution	X 1			
Compound Name	1-	71699	units	MDL
Acenaphthene	BDL		ug/L	2
Acenaphthylene	BDL		ug/L	2
Anthracene	BDL		ug/L	2
Benzo(a)anthracene	BDL		ug/L	2
Benzo(a)pyrene	BDL		ug/L	2
Benzo(b)fluoranthene	BDL		ug/L	2
Benzo(g,h,i)perylene	BDL		ug/L	2
Benzo(k)fluoranthene	BDL		ug/L	3
Chrysene	BDL		ug/L	2
Dibenz(a,h)anthracene	BDL		ug/L	2
Fluoranthene	BDL		ug/L	2
Indeno(1,2,3-cd)pyrene	BDL		ug/L	2
1-Methylnaphthalene	BDL		ug/L	2
2-Methylnaphthalene	BDL		ug/L	3
Naphthalene	BDL		ug/L	2
Phenanthrene	BDL		ug/L	2
Pyrene	BDL		ug/L	2

SURROGATE SPIKE RECOVERIES

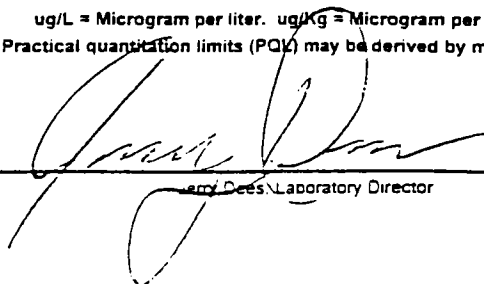
	Acceptance Limits	Percent Recovery
Nitrobenzene- d5	35-114	66
2-Fluorobiphenyl	43-116	75
Terphenyl -d14	33-141	65

Explanation of Flags:

COMMENTS : Surrogate recovery limits derived from EPA OLM01 0 SOW 3/90.

BDL = Below Detection Limit. ug/L = Microgram per liter. ug/kg = Microgram per kilogram. * = FL HRS certification pending.
MDL = Method detection limit. Practical quantitation limits (PQL) may be derived by multiplying the MDL by 4.

Approved by :


Jerry Dees, Laboratory Director

Date: 5/9/97

Report Generated

Navy Public Works Center Environmental Laboratory

Bldg. 3887, Code 920
NAS Pensacola, FL 32508 - 6500
Phone (904) 452-4728/3642
JSN 922-4728/3642
FAX 922-2783

Client: SPORTENVDETHASN Lab
Address: 1899 N. Hobson Ave.
N. Charleston, S.C. 29405-2106
Phone #: (803) 743-3239 ext. 26
Contact: Mr. Fred McLean

Analytical Report

Total Volatiles by Method 8260

Lab Report Number: 71700
Sample Date: 04/22/97
Received Date: 04/23/97
Sample Site: NAS Cecil Field, FL
Job Order No.: 127 4021

LAB Sample ID#	1-	71700			
Sample Name / Location	VOA Trip Blank 97CNS011-2				
Collector's Name	McElwee				
Date & Time Collected	04/22/97 @ 1021				
Sample Type (composite or grab)	Grab				
Analyst	J. Moore				
Date of Extraction / Initials	04/23/97 JM				
Date of Analysis	04/23/97				
Sample Matrix	GW				
Dilution	X 1				
Compound Name	1-	71700	units	Det. Limit	Flags
Benzene	BDL		ug/L	1	
Bromobenzene	BDL		ug/L	1	
Bromochloromethane	BDL		ug/L	1	
Bromodichloromethane	BDL		ug/L	1	
Bromoform	BDL		ug/L	2	
Bromomethane	BDL		ug/L	3	
n-Butylbenzene	BDL		ug/L	1	
sec-Butylbenzene	BDL		ug/L	1	
tert-Butylbenzene	BDL		ug/L	2	
Carbon Tetrachloride	BDL		ug/L	1	
Chlorobenzene	BDL		ug/L	1	
Chloroethane	BDL		ug/L	1	
Chloroform	BDL		ug/L	1	
Chloromethane	BDL		ug/L	1	
2-Chlorotoluene	BDL		ug/L	1	
4-Chlorotoluene	BDL		ug/L	1	
Dibromochloromethane	BDL		ug/L	1	
1,2-Dibromo-3-chloropropane	BDL		ug/L	5	
1,2-Dibromoethane	BDL		ug/L	1	
Dibromomethane	BDL		ug/L	1	
1,2-Dichlorobenzene	BDL		ug/L	1	
1,3-Dichlorobenzene	BDL		ug/L	1	
1,4-Dichlorobenzene	BDL		ug/L	1	
Dichlorodifluoromethane	BDL		ug/L	1	
1,1-Dichloroethane	BDL		ug/L	1	
1,2-Dichloroethane	BDL		ug/L	1	
1,1-Dichloroethene	BDL		ug/L	1	
cis-1,2-Dichloroethene	BDL		ug/L	1	
trans-1,2-Dichloroethene	BDL		ug/L	1	
1,2-Dichloropropane	BDL		ug/L	1	
1,3-Dichloropropane	BDL		ug/L	1	
2,2-Dichloropropane	BDL		ug/L	1	
1,1-Dichloropropene	BDL		ug/L	1	
Ethylbenzene	BDL		ug/L	1	
Ethyl ether	BDL		ug/L	1	
Hexachlorobutadiene	BDL		ug/L	2	
2-Hexanone	BDL		ug/L	1	
Isopropylbenzene	BDL		ug/L	1	
p-Isopropyltoluene	BDL		ug/L	1	

Navy Public Works Center Environmental Laboratory

Bldg. 3887, Code 920
NAS Pensacola, FL 32508 - 6500
Phone (904) 452-4728/3642
SN 922-4728/3642

Client: SPORTENVDETHASN Lab
Address: 1899 N. Hobson Ave.
N. Charleston, S.C. 29405-2106
Phone #: (803) 743-3239 ext. 26
Contact: Mr. Fred McLean

Analytical Report

Total Volatiles by Method 8260

Lab Report Number: 71700
Sample Date: 04/22/97
Received Date: 04/23/97
Sample Site: NAS Cecil Field, FL
Job Order No.: 127 4021

Compound Name	1- 71700	units	Det. Limit	Flags
Methylene Chloride	BDL	ug/L	1	
Methyl ethyl ketone (MEK) *	BDL	ug/L	2	
Methyl isobutyl ketone (MIBK) *	BDL	ug/L	1	
Methyl-tert-butyl ether (MTBE)	BDL	ug/L	1	
Naphthalene	BDL	ug/L	1	
n-Propylbenzene	BDL	ug/L	1	
Styrene	BDL	ug/L	1	
1,1,1,2-Tetrachloroethane	BDL	ug/L	1	
1,1,2,2-Tetrachloroethane	BDL	ug/L	1	
Tetrachloroethene	BDL	ug/L	1	
Toluene	BDL	ug/L	1	
2,3-Trichlorobenzene	BDL	ug/L	1	
1,2,4-Trichlorobenzene	BDL	ug/L	1	
1,1,1-Trichloroethane	BDL	ug/L	1	
1,1,2-Trichloroethane	BDL	ug/L	1	
Trichloroethene	BDL	ug/L	1	
Trichlorofluoromethane	BDL	ug/L	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane *	BDL	ug/L	1	
1,2,3-Trichloropropane	BDL	ug/L	1	
1,2,4-Trimethylbenzene	BDL	ug/L	1	
1,3,5-Trimethylbenzene	BDL	ug/L	1	
Vinyl Chloride	BDL	ug/L	1	
m,p-Xylene	BDL	ug/L	1	
o-Xylene	BDL	ug/L	1	

SURROGATE SPIKE RECOVERIES

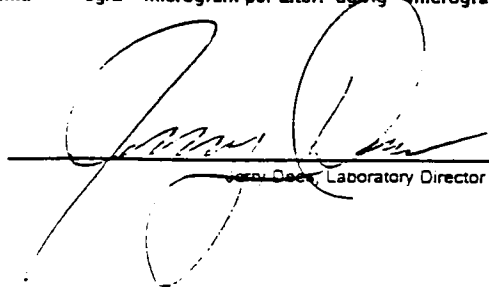
	Acceptance Limits	Percent Recovery
1,2-Dichloroethane-d4	75-133	101
Toluene-d8	86-119	100
Bromofluorobenzene	85-116	100

Explanation of Flags:

COMMENTS :

BDL = Below Detection Limit. ug/L = microgram per Liter. ug/Kg = microgram per Kilogram. * = FL HRS certification pending.

Approved by :


Jerry Dees, Laboratory Director

Date: 5/9/97
Report Generated

CHAIN OF CUSTODY/REQUEST FOR ANALYSIS

NPWC Environmental Laboratory

Bldg. 3887, Code 920

NAS Pensacola, FL 32508

Ph #: (904) 452-4728/3642

OSN: 922-4728/3642

FAX: (904) 452-2799/2387

Requester:

SPORTENVDETHASN Lab

Address:

1899 North Hobson Avenue

N. Charleston, S.C. 29405-2106

Phone #:

(803) 743-3239 ext. 26

Contact:

Mr. Fred McLean

Job Order #:

2

Report Required?

Yes No

OC Report?

Yes

Lab ID Number:

96018

Sample Date:

4/22/97

Received Date:

Sample Site:

NAS CEUL FIELD

Lab Due Date:

Sample ID #	Lab	01-7-16-97	02-7-17-00	03-	04-	Notes
Sample Name		97CNS011-1	97CNS011-2			
or Location		TW-606-1	VOA/FR.P			
		BLDG 606	BLANK			
Sampled by		MCLEWEE	MCLEWEE			
Collection	Date	4/22/97	4/22/97			
Date/Time	Time	1020	1021			
Sample Matrix		GW	GW			
GROUP PARAMETERS						
by Method Name	METHOD #	X	Sample ID #	X	Sample ID #	X
HW Charact. (complete)	EPA SW 846					
Ionizable (Fluoride)	SW 846 1010					
Reactivity (Cyanide & Sulfide)	EPA SW-846					
Corrosivity (pH)	SW 846 9040/9045					
Toxicity (TCUP) complete	EPA SW-846					
Toxicity (TCUP) complete	EPA SW-846					
Toxicity (TCUP) less Petroleum	EPA SW-846					
TCUP BNA Extractions	SW 846 8270					
TCUP Acid Extractions	SW 846 8270					
TCUP BN Extractions	SW 846 8270					
TCUP Petroleum	SW 846 8080					
TCUP Herbicides	SW 846 8150					
TCUP Volatiles	SW 846 8280					
TCUP Metals (M)	EPA SW-846					
FOI - FOS Solvents	EPA SW-846					
Total Volatiles	SW 846 8280					
STEX & Naphthalene + MTBE	SW 846 8280	X	97CNS011-1	X	97CNS011-2	
Total BNA Extractions	SW 846 8270					
PAH's	SW 846 8270	X	97CNS011-1			
PCB's in Oil	SW 846 8080					
PCB's in Water/Sol/Water	SW 846 8080					
Total PCRA Metals (M)	EPA SW-846					
Asbestos (Bulk)						
TPH (IR)	EPA 418.1					
Oil & Grease	EPA 413.1					
Lead in Paint	SW 846 8010					
Total Organic Halogens	EPA SW-846					
Other:		1 OF 6 Thru	1 OF 4 Thru			
		6 OF 6	4 OF 4			

Comments:

Reviewed by:

T.L. McElwee

Date/Time

4/22/97 1400 hrs

Received by:

B. Brown

Date/Time

4-23-97 0 1030

Attachment III

Certificate of Disposal (tank)
Disposal Manifest (fuel)

UST Certificate of Disposal

CONTRACTOR

Supervisor of Shipbuilding, Conversion and Repair, USN
Portsmouth, VA
Environmental Detachment Charleston
1899 North Hobson Avenue
North Charleston 29405-2106

Telephone (803) 743-6482

TANK ID & LOCATION

Building 606, NAS Cecil Field, Main Rd.,
Yellow Water Weapons Area, Jacksonville, FL 32215-0101

DISPOSAL LOCATION

NAS Cecil Field
Recycling Center, Building 805
Jacksonville, FL, 32215-0101

TYPE OF TANK

Fuel oil

SIZE (GAL)

3,000 gal.

CLEANING/DISPOSAL METHOD

The tank was cut open on both ends, cleaned with a steam cleaner, cut into sections, and disposed of as recyclable scrap metal.

DISPOSAL CERTIFICATION

I certify that the above tank has been properly cleaned and disposed of as recyclable scrap metal.

T. L. McElwee

T. L. McElwee

5/22/97

(Date)



Georgia
Petroleum,
Inc.

NON-HAZARDOUS
WASTE MANIFEST

1. Generator's US EPA ID No.

FL 5170022474

Manifest
Document No.

2. Page 1
of 1

4-11-97

3. Generator's Name and Mailing Address

NAVAL AIR STATION: CECIL FIELD, SCE, Encl NO 4943
JACKSONVILLE, FL 32215-0106

4. Generator's Phone (904) 728-5620

5. Transporter 1 Company Name

GEORGIA PETROLEUM

6. US EPA ID Number

GA0581222433

Credit

7. Transporter 2 Company Name

8. US EPA ID Number

Paid

9. Designated Facility Name and Site Address

Georgia Petroleum, Inc.
1612 James P. Rogers Circle
Valdosta, Georgia 31601

10. US EPA ID Number

GA0581222433

A. Transporter's Phone 904-344-7110

B. Transporter's Phone

C. Facility's Phone
912-244-9110

11. Waste Shipping Name and Description

12. Containers

No.

Type

13. Total
Quantity

14. Unit
Wt/Vol

a. NON HAZ DIRTY DIESEL

(APPROX)

1500 GAL

b. Non HAZ (Liquids) (off spec

7510

c. Diesel) NOS. OIL (MA 1993)

Additional Descriptions for Materials Listed Above

API 34.3

VIS 32

BDN

(2130)

CHLOR 450

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

In the event of an emergency call 912-244-9110 Mon - Fri 8-5 or 912-244-9601 anytime.

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name

URSULA KLIMAS

Signature

URSULA KLIMAS

Month Day Year

10/4/1997

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

Freddy Norris

Signature

Freddy Norris

Month Day Year

10/4/1997

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

10/4/1997

19. Discrepancy Indication Space

COMPT #1 12500 gal 125 gal. free water loss 6% water in 1 layer

COMPT (2)(3)(4) 50,000 gal loss 1% water

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name

Gene Goldtuss

Signature

Gene Goldtuss

Month Day Year

10/4/1997

TRANSPORTER #1



Florida Department of Environmental Regulation

Twin Towers Office Bldg • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

DER Form # 17-761.900(6)
Form Title: Closure Assessment Form
Effective Date: December 10, 1990
DER Application No. _____

Closure Assessment Form

Owners of storage tank systems that are replacing, removing or closing in place storage tanks shall use this form to demonstrate that a storage system closure assessment was performed in accordance with Rule 17-761 or 17-762, Florida Administrative Code. Eligible Early Detection Incentive (EDI) and Reimbursement Program sites do not have to perform a closure assessment.

Please Print or Type
Complete All Applicable Blanks

1. Date: 22 May 1997
2. DER Facility ID Number: 168507293
3. County: Duval
4. Facility Name: Building 606, EM Dining Facility
5. Facility Owner: Naval Air Station Cecil Field
6. Facility Address: Bldg 606, Main Rd., Yellow Water Weapons Area
7. Mailing Address: N.P.W.C., Box 101, Cecil Field Zone, Jacksonville, FL 32215-0101
8. Telephone Number: (904) 778-5620
9. Facility Operator: Lloyd Cruz
10. Are the Storage Tank(s): (Circle one or both) A. Aboveground or B. Underground
11. Type of Product(s) Stored: Fuel oil
12. Were the Tank(s): (Circle one) A. Replaced B. Removed C. Closed in Place D. Upgraded (aboveground tanks only)
13. Number of Tanks Closed: 1
14. Age of Tanks: _____

Facility Assessment Information

Yes No Not Applicable

<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

1. Is the facility participating in the Florida Petroleum Liability Insurance and Restoration Program (FPLIRP)?
2. Was a Discharge Reporting Form submitted to the Department?
If yes, When: notification made by Where: Cecil Field Env., ph 788-5620
4-16-97
3. Is the depth to ground water less than 20 feet?
4. Are monitoring wells present around the storage system?
If yes, specify type: ☒ Water monitoring ☐ Vapor monitoring
5. Is there free product present in the monitoring wells or within the excavation?
6. Were the petroleum hydrocarbon vapor levels in the soils greater than 500 parts per million for gasoline?
Specify sample type: ☐ Vapor Monitoring wells ☐ Soil sample(s)
7. Were the petroleum hydrocarbon vapor levels in the soils greater than 50 parts per million for diesel/kerosene?
Specify sample type: ☐ Vapor Monitoring wells ☒ Soil sample(s)
8. Were the analytical laboratory results of the ground water sample(s) greater than the allowable state target levels?
(See target levels on reverse side of this form and supply laboratory data sheets)
9. If a used oil storage system, did a visual inspection detect any discolored soil indicating a release?
10. Are any potable wells located within 1/4 of a mile radius of the facility?
11. Is there a surface water body within 1/4 mile radius of the site? If yes, indicate distance: _____



12. A detailed drawing or sketch of the facility that includes the storage system location, monitoring wells, buildings, storm drains, sample locations, and dispenser locations must accompany this form.
13. If a facility has a pollutant storage tank system that has both gasoline and kerosene/diesel stored on site, both EPA Method 602 and EPA Method 610 must be performed on the ground water samples obtained.
14. Amount of soils removed and receipt of proper disposal.
15. If yes is answered to any one of questions 5-9, a Discharge Reporting Form 17-761.900(1) indicating a suspected release shall be submitted to the Department within one working day.
16. A copy of this form and any attachments must be submitted to the Department's district office in your area and to the locally administered program office under contract with the Department within 60 days of completion of tank removal or filling a tank with an inert material.

Signature of Owner

Date

T. L. LeGues

6/13/97

Signature of Person Performing Assessment

Date

Environmental Specialist

Title of Person Performing Assessment

State Ground Water Target Levels That Affect A Pollutant Storage Tank System Closure Assessment

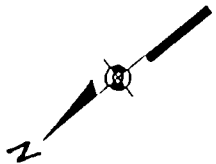
State ground water target levels are as follows:

1. For gasoline (EPA Method 602):

- a. Benzene 1 ug/l
- b. Total VOA 50 ug/l
 - Benzene
 - Toluene
 - Total Xylenes
 - Ethylbenzene
- c. Methyl Tertiary Butyl Ether (MTBE) 50 ug/l

2. For kerosene/diesel (EPA Method 610):

- a. Polynuclear Aromatic Hydrocarbons (PAHS)
(Best achievable detection limit, 10 ug/l maximum)



BLDG 606

VENT, FOUND DISCONNECTED
AND UNCAPPED
(ALL PVC PIPING)

(PVC PIPING)
RUBBER COUPLING

CUT AND CAPPED, NEW
SCREWED MECHANICAL JOINTS

VENT
(STEEL PIPING)

SUPPLY & RETURN PIPING
(1/2" STEEL)

CONCRETE
BALLAST PAD
(APPROX. 12" THK)

FILL

PIPE RUN EXCAVATION, TYP
(REMAINDER OF RUN REMOVED FOR CLARITY)

UST EXCAVATION

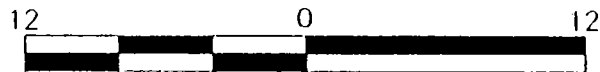
GRASS

ASPHALT

LEGEND

- P - POWER POLE
- S - SEWER MANWAY
- ⊗ - SITE OF TEMPORARY MONITORING
WELL TW-606-1

FORMER UST 606



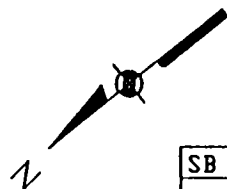
GRAPHIC SCALE

SPORTENVDETCHASN
1899 North Hobson Ave.
North Charleston, SC
29405-2106
Ph. (803) 743-6777

Site Map 1
UST 606
NAS Cecil Field
Yellow Water Weapons Area
Jacksonville, FL

DWG DATE: 21 MAY 97

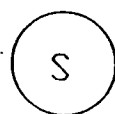
DWG NAME: CI 606.3



SB #	TIME	DEPTH	READING(ppm)
SB-606-1	0835	2'	32.0
SB-606-2	0920	2'	547.0
SB-606-3	0933	4'	267.0
SB-606-4	0955	6'	52.0
SB-606-5	1125	2'	174.0
SB-606-6	1147	4'	975.0
SB-606-7	--	--	READING NOT TAKEN DUE TO WET SOIL AT 9'

BLDG 606

SS #	TIME	DEPTH	READING(ppm)
SS-1	1740	1'	690
SS-2	1743	3'	2380
SS-3	1750	1'	4200
SS-4	1753	3'	2071
SS-5	1746	5'	4613
SS-6	1756	5'	755
SS-7	1749	7'	>5000
SS-8	1758	7'	898
SS-9	1800	7'	1334
SS-10	1802	1'	225
SS-11	1804	3'	2310
SS-12	1805	5'	3012
SS-13	1807	7'	2027
SS-14	1809	1'	463
SS-15	1811	3'	638
SS-16	1812	5'	>5000
SS-17	1814	7'	>5000
SS-18	0944	3'	607
SS-19	0946	3'	335
SS-20	0948	3'	1324



SB-606-5, 6, 7

SB-606-2, 3, 4

SB-606-1

③ ④ ⑥ ⑧

①⑦ ①⑥ ①⑤ ①④

UST 606

① ② ⑤ ⑦

⑬ ⑫ ⑪ ⑩

LEGEND

H - HOLES FOUND HERE

P - POWER POLE

S - SEWER MANWAY

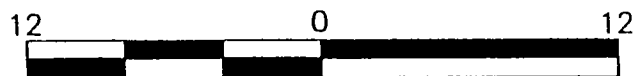
SB - SOIL BORING

⊗ - SITE OF TEMPORARY MONITORING WELL TW-606-1

① - SOIL SAMPLE (SS-#)

NOTE:

APPROX. 20 CU YARDS OF CONTAMINATED SOIL WAS REMOVED AND TRANSFERED TO SITE 3 AT NAS CECIL FIELD.



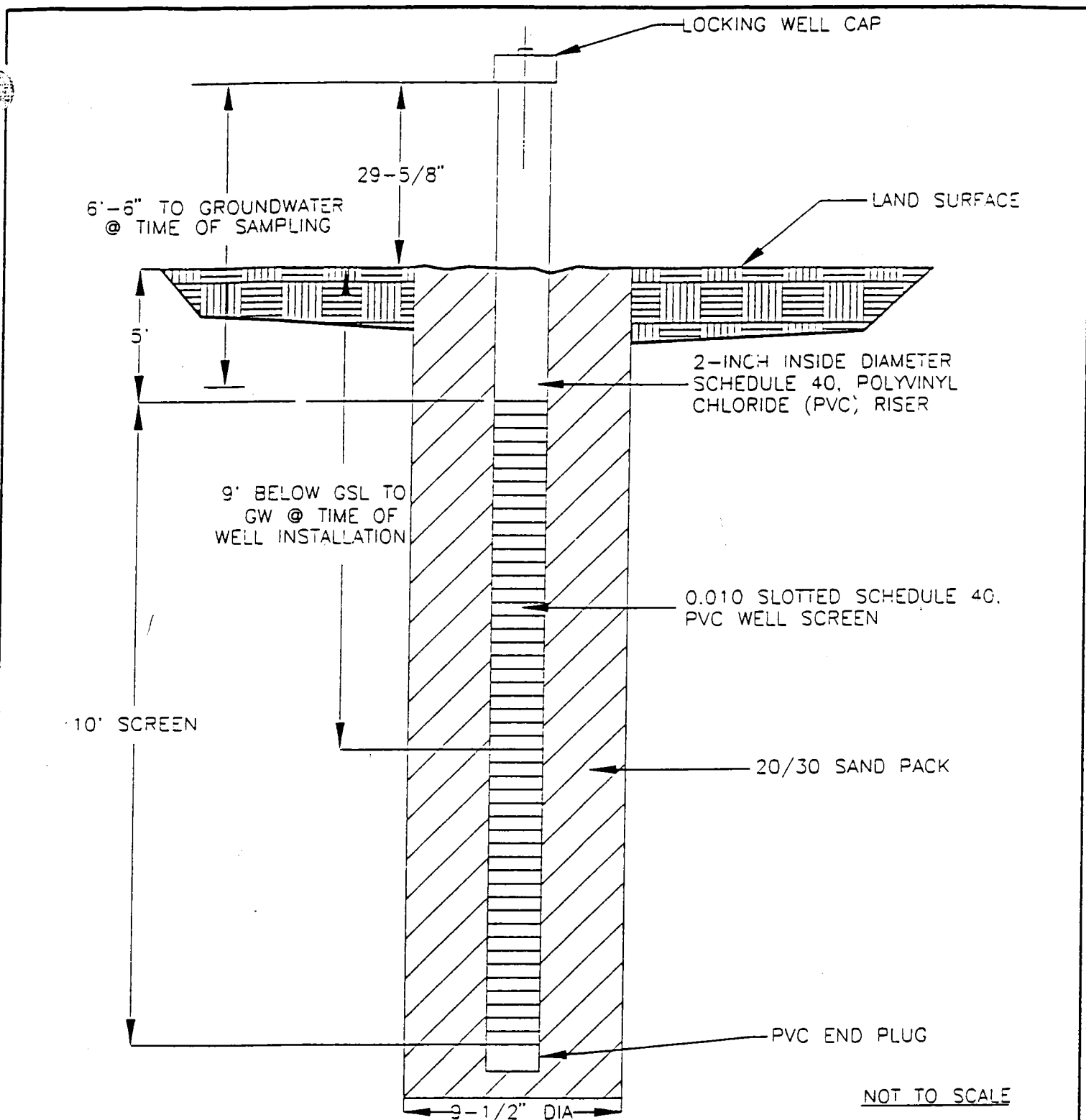
GRAPHIC SCALE

SPORTENVDETHASN
1899 North Hobson Ave.
North Charleston, SC
29405-2108
(803) 743-6777

Site Map 2
UST 606
NAS Cecil Field
Yellow Water Weapons Area
Jacksonville, FL

DWG DATE: 22 MAY 97

DWG NAME: 606_4



TYPICAL TEMPORARY MONITORING WELL
INSTALLATION DETAIL

SPORTENVDETHASN
1899 North Hobson Ave.
North Charleston, SC 29405-2106
Ph. (803) 743-6777

TW-606-1
AT UST 606
NAS CECIL FIELD
Jacksonville, FL.

DWG DATE: 20 MAY 97 DWG NAME: FIGURE 1



APPENDIX B
SOIL ANALYTICAL DATA

NAS CECIL FIELD -- TANK 606
SOIL DATA -- KEROSENE ANALYTICAL GROUP -- REPORT REQ NO. 9947

Lab Sample Number:	A8D1701010	A8D1701010	
Site	UST GREY	UST GREY	
Locator	CEF-606-SB1	CEF-606-SB2	
Collect Date:	15-APR-98	15-APR-98	
	VALUE QUAL UNITS DL	VALUE QUAL UNITS DL	

ST GREY			
Benzene	1.1 U ug/kg	1.1	1.2 U ug/kg 1.2
Ethylbenzene	1.1 U ug/kg	1.1	1.2 U ug/kg 1.2
Toluene	1.1 U ug/kg	1.1	1.2 U ug/kg 1.2
Xylenes (total)	1.1 U ug/kg	1.1	1.2 U ug/kg 1.2
Acenaphthene	230 U ug/kg	230	4700 U ug/kg 4700
Acenaphthylene	230 U ug/kg	230	4700 U ug/kg 4700
Anthracene	230 U ug/kg	230	4700 U ug/kg 4700
Benzo (a) anthracene	33 ug/kg	5.7	120 U ug/kg 120
Benzo (a) pyrene	29 ug/kg	5.7	120 U ug/kg 120
Benzo (b) fluoranthene	32 ug/kg	5.7	120 U ug/kg 120
Benzo (g,h,i) perylene	20 ug/kg	5.7	120 U ug/kg 120
Benzo (k) fluoranthene	15 ug/kg	5.7	120 U ug/kg 120
Chrysene	28 ug/kg	23	470 U ug/kg 470
Dibenzo (a,h) anthracene	28 J ug/kg	5.7	120 U ug/kg 120
Fluoranthene	16 J ug/kg	5.7	120 U ug/kg 120
Fluorene	230 U ug/kg	230	4700 U ug/kg 4700
Indeno (1,2,3-cd) pyrene	21 J ug/kg	5.7	120 U ug/kg 120
Naphthalene	230 U ug/kg	230	4700 U ug/kg 4700
Phenanthrene	230 U ug/kg	230	4700 U ug/kg 4700
Pyrene	77 ug/kg	5.7	120 U ug/kg 120
LA PRO			
TPH C8-C40	19 mg/kg	11	35 mg/kg 12

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE